

CLAIMS:

1. A medical catheter comprising:
 - a lumen comprising a proximal end and a downstream direction leading away from the proximal end;
 - a connector located distal from the proximal end of the lumen, the connector separating the lumen into two or more legs downstream from the connector;
 - at least one opening located in each leg of the two or more legs, wherein the at least one opening in each leg is located downstream from the connector, and wherein a therapeutic drug can be delivered out of the catheter through the opening to a targeted patient site; and
 - a flow restrictor located within each leg of the two or more legs, wherein the at least one opening in each leg is located downstream from the flow restrictor.
2. A medical catheter according to claim 1, wherein the flow restrictor comprises radiopaque material.
3. A medical catheter according to claim 1, wherein the flow restrictor comprises sintered metal microspheres.
4. A medical catheter according to claim 1, wherein the flow restrictor comprises metal selected from the group consisting of tungsten, tantalum, and titanium.
5. A medical catheter according to claim 1, wherein the flow restrictor comprises pores ranging in diameter from about 0.3 to 6.2 microns.
6. A medical catheter according to claim 1, further comprising a diffuser proximate each opening of the at least one opening, wherein the therapeutic drug passes through the diffuser to reach the targeted patient site.

7. A medical catheter according to claim 6, wherein the diffuser comprises radiopaque material.
8. A medical catheter according to claim 6, wherein the diffuser comprises sintered metal microspheres.
9. A medical catheter according to claim 6, wherein the diffuser comprises metal selected from the group consisting of tungsten, tantalum, and titanium.
10. A medical catheter according to claim 6, wherein the diffuser comprises pores ranging in diameter from about 0.3 to 6.2 microns.
11. A medical catheter according to claim 6, wherein the diffuser comprises a plurality of holes formed in a wall.
12. A medical catheter according to claim 1, wherein the at least one opening in at least one leg of the two or more legs comprises a side opening.
13. A medical catheter according to claim 12, wherein the at least one leg comprising a side opening comprises a distal tip downstream from the side opening.
14. A medical catheter according to claim 1, further comprising a flow restrictor located upstream from the two or more legs.
15. A medical catheter comprising:
 - a lumen comprising a proximal end and a downstream direction leading away from the proximal end;
 - a connector located distal from the proximal end of the lumen, the connector separating the lumen into two or more legs downstream from the connector;
 - at least one opening located in each leg of the two or more legs, wherein the at least one opening is located downstream from the connector, and wherein a therapeutic

drug can be delivered out of the catheter through the at least one opening to a targeted patient site; and

a flow restrictor located within each leg of the two or more legs, wherein the at least one opening in each leg is located downstream from the flow restrictor;

wherein overall resistance to flow from the proximal end of the lumen to the at least one opening in each leg of the two or more legs is substantially equal.

16. A medical catheter according to claim 15, wherein the flow restrictor comprises radiopaque material.

17. A medical catheter according to claim 15, wherein the flow restrictor comprises sintered metal microspheres.

18. A medical catheter according to claim 15, wherein the flow restrictor comprises metal selected from the group consisting of tungsten, tantalum, and titanium.

19. A medical catheter according to claim 15, wherein the flow restrictor comprises pores ranging in diameter from about 0.3 to 6.2 microns.

20. A medical catheter according to claim 15, further comprising a diffuser proximate the at least one opening in each leg, wherein the therapeutic drug passes through the diffuser to reach the targeted patient site.

21. A medical catheter according to claim 20, wherein the diffuser comprises radiopaque material.

22. A medical catheter according to claim 20, wherein the diffuser comprises sintered metal microspheres.

23. A medical catheter according to claim 20, wherein the diffuser comprises metal selected from the group consisting of tungsten, tantalum, and titanium.

24. A medical catheter according to claim 20, wherein the diffuser comprises pores ranging in diameter from about 0.3 to 6.2 microns.
25. A medical catheter according to claim 20, wherein the diffuser comprises a plurality of holes formed in a wall.
26. A medical catheter according to claim 15, wherein the at least one opening in at least one leg of the two or more legs comprises a side opening.
27. A medical catheter according to claim 26, wherein the at least one leg comprising a side opening comprises a distal tip downstream from the side opening.
28. A medical catheter according to claim 15, further comprising a flow restrictor located upstream from the two or more legs.
29. A medical catheter comprising;
a lumen that comprises a proximal end and a downstream direction leading away from the proximal end, wherein the lumen separates into two or more legs downstream from the proximal end;
at least one opening located in each leg of the two or more legs, wherein a therapeutic drug can be delivered out of the catheter through the at least one opening to a targeted patient site; and
a flow restrictor located within each leg of the two or more legs;
wherein overall resistance to flow from the proximal end of the lumen to the at least one opening in each leg of the two or more legs is substantially equal.
30. A medical catheter according to claim 29, wherein the at least one opening in at least one leg of the two or more legs is located downstream from the flow restrictor in the at least one leg.

31. A medical catheter according to claim 29, wherein the flow restrictor comprises radiopaque material.
32. A medical catheter according to claim 29, wherein the flow restrictor comprises sintered metal microspheres.
33. A medical catheter according to claim 29, wherein the flow restrictor comprises metal selected from the group consisting of tungsten, tantalum, and titanium.
34. A medical catheter according to claim 29, wherein the flow restrictor comprises pores ranging in diameter from about 0.3 to 6.2 microns.
35. A medical catheter according to claim 29, further comprising a diffuser proximate each opening of the at least one opening, wherein the therapeutic drug passes through the diffuser to reach the targeted patient site.
36. A medical catheter according to claim 35, wherein the diffuser in at least one leg of the two or more legs is located downstream from the flow restrictor in the at least one leg.
37. A medical catheter according to claim 35, wherein the diffuser comprises radiopaque material.
38. A medical catheter according to claim 35, wherein the diffuser comprises sintered metal microspheres.
39. A medical catheter according to claim 35, wherein the diffuser comprises metal selected from the group consisting of tungsten, tantalum, and titanium.
40. A medical catheter according to claim 35, wherein the diffuser comprises pores ranging in diameter from about 0.3 to 6.2 microns.

41. A medical catheter according to claim 35, wherein the diffuser comprises a plurality of holes formed in a wall.
42. A medical catheter according to claim 29, wherein the at least one opening in at least one leg of the two or more legs comprises a side opening.
43. A medical catheter according to claim 42, wherein the at least one leg comprising a side opening comprises a distal tip downstream from the side opening.
44. A medical catheter according to claim 29, further comprising a flow restrictor located upstream from the two or more legs.
45. A medical catheter comprising;
a lumen that comprises a proximal end and a downstream direction leading away from the proximal end, wherein the lumen separates into two or more branches at a first location downstream from the proximal end, and wherein at least one branch of the two or more branches separates into two or more legs downstream from the first location;
at least one opening located in each leg of the two or more legs, wherein a therapeutic drug can be delivered out of the catheter through the at least one opening to a targeted patient site; and
a flow restrictor located within each leg of the two or more legs.
46. A medical catheter according to claim 45, wherein overall resistance to flow from the proximal end of the lumen to the at least one opening in each leg of the two or more legs is substantially equal.
47. A medical catheter according to claim 45, further comprising a flow restrictor located upstream from the two or more branches.

48. A medical catheter according to claim 45, further comprising a flow restrictor located upstream from the two or more legs in at least one branch of the two or more branches.
49. A medical catheter according to claim 45, wherein the at least one opening in at least one leg of the two or more legs is located downstream from the flow restrictor in the at least one leg.
50. A medical catheter according to claim 45, wherein the flow restrictor comprises radiopaque material.
51. A medical catheter according to claim 45, wherein the flow restrictor comprises sintered metal microspheres.
52. A medical catheter according to claim 45, wherein the flow restrictor comprises metal selected from the group consisting of tungsten, tantalum, and titanium.
53. A medical catheter according to claim 45, wherein the flow restrictor comprises pores ranging in diameter from about 0.3 to 6.2 microns.
54. A medical catheter according to claim 45, further comprising a diffuser proximate each opening of the at least one opening, wherein the therapeutic drug passes through the diffuser to reach the targeted patient site.
55. A medical catheter according to claim 54, wherein the diffuser in at least one leg of the two or more legs is located downstream from the flow restrictor in the at least one leg.
56. A medical catheter according to claim 54, wherein the diffuser comprises radiopaque material.

57. A medical catheter according to claim 54, wherein the diffuser comprises sintered metal microspheres.
58. A medical catheter according to claim 54, wherein the diffuser comprises metal selected from the group consisting of tungsten, tantalum, and titanium.
59. A medical catheter according to claim 54, wherein the diffuser comprises pores ranging in diameter from about 0.3 to 6.2 microns.
60. A medical catheter according to claim 54, wherein the diffuser comprises a plurality of holes formed in a wall.
61. A medical catheter according to claim 45, wherein the at least one opening in at least one leg of the two or more legs comprises a side opening.
62. A medical catheter according to claim 61, wherein the at least one leg comprising a side opening comprises a distal tip downstream from the side opening.